Artistry in Sound

ONKYO

TX-822/811

Quartz Synthesized Tuner Amplifier
Quarz-Synthesizer-Empfänger-Verstärker
Ampli-tuner à synthétiseur à quartz
Amplificador-sintonizador sintetizado por cuarzo
Quartz-Synthesizer-Tuner-Versterker
Quartz syntestuner/förstärkare
Amplificatore sintanizzatore/sintetizzato al quarzo

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• *Congratulations on your purchase of the ONKYO TX-822, TX-811 Tuner-Amplifier.*
• *Please read this manual thoroughly before making connections and turning power on.*
• *Following the instructions in this manual will enable you to obtain optimum performance and listening enjoyment from your new TX-822, TX-811.* • *Please retain this manual for future reference.*

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Features

- **Plenty of clean Power**
  TX-822: 40 watts of continuous power per channel into 8 ohms with no more than 0.3% total harmonic distortion (2 x 50 watts continuous power at 4 ohms DIN)
  Canadian model: 50 watts of continuous power per channel into 8 ohms with no more than 0.3% total harmonic distortion (2 x 90 watts dynamic power at 4 ohms)
  TX-811: 40 watts of continuous power per channel into 8 ohms with no more than 0.3% total harmonic distortion (2 x 50 watts continuous power at 4 ohms DIN)

- **Six Program Inputs Including Video Sound with Logic Controlled Feather-Touch Keys**
  The TX-822 and TX-811 can both handle six input sources: FM, AM, phono, CD player, tape-1/video and tape-2. This gives you plenty of flexibility as well as the chance to expand your system in future. The logic controlled feather touch keys make for smooth switching between sources.

- **APR (Automatic Precision Reception) System**
  Onkyo's exclusive APR system lets every FM broadcast sound its best. It constantly monitors the signal and selects the optimum settings for two reception modes: RF local/DX and stereo auto/mono. The APR system settings are shown by indicators on the front panel.

- **Multi-Function Infrared Remote Control Included (TX-822)**
  The included remote control covers all of the TX-822's major functions including volume up/down, audio muting, tuner preset station channel and input selector switching. It can also control the major functions of any Onkyo cassette deck or CD player bearing the RI mark after you make the appropriate connections with the TX-822.

- **30-Station FM/AM Random Preset Tuning**
  The TX-822 and TX-811 let you store thirty AM and FM stations in memory in any combination. Avid FM fans can devote most or all of the memory settings to FM stations. If there are few FM stations in your area, simply register more AM stations in memory.

- **Two Pairs of Speaker Output Terminals**

- **Battery-Free Backup System to Protect Memory Contents**

Important safeguards

"WARNING"

"TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE."

CAUTION

"TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL."

- For models having power cord with a polarized plug.

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ATTENTION FOR BRITISH MODEL

- Replacement and mounting of an AC plug on the power supply cord of this unit should be performed only by qualified service personnel.
- IMPORTANT: The wires in the mains lead are coloured in accordance with the following code:
  Blue: Neutral
  Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

- This apparatus complies with requirements of EC directive 87/308/EEC.

Observe the following precautions to obtain troublefree performance for many years.

1. Avoid places subject to direct sunlight or extremely high or low temperatures.
2. Avoid damp or dusty places and places directly affected by vibrations from the speakers. In particular, avoid placing the unit on or above one of the speakers.
3. Avoid unstable locations and high places from which the unit could fall.
4. Ventilation — The unit should be situated so that its location or position does not interfere with proper ventilation. For example, the unit should not be placed on a bed, sofa, rug of similar surface that could block the ventilation openings or placed in a built-in installation, such as a bookcase or cabinet, that could impede the flow of air through the ventilation openings.
5. Heat — The unit should be situated away from heat sources such as radiators, heat registers, or other appliances (including amplifiers) that produce heat.
6. Cleaning of the internal parts should be performed only by qualified service personnel.
7. Spillage — Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through the openings.
8. Damage Requiring Service – The unit should be serviced by qualified service personnel when:
   A. The power supply cord or the plug has been damaged; or
   B. Objects have fallen or liquid has been spilled into the unit; or
   C. The unit has been exposed to rain; or
   D. The unit does not appear to operate normally or exhibits a marked change in performance; or
   E. The unit has been dropped or the enclosure damaged.
9. Servicing – The user should not attempt to service the unit beyond that described in the operating instructions. All other servicing should be referred to qualfied service personnel.

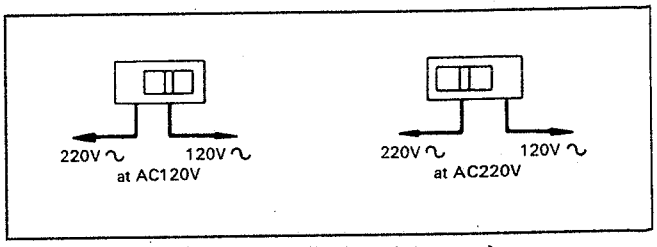
Precautions

1. **Warranty Card**
   The serial number is written on the rear panel of this unit. Copy the serial number and model number onto your warranty card and keep it in a safe place.
2. **Recording Copyright**
   Recording of copyrighted material for other than personal use is illegal without permission of the copyright holder.
3. **AC Fuse**
   The fuse is located inside the chassis and is not user serviceable. If power does not come on, contact your Onkyo service center.
4. **Care**
   From time to time you should wipe off the front and rear panels and the cabinet with a soft cloth. For heavier dirt, dampen a soft cloth in a weak solution of mild detergent and water, wring it out dry, and wipe off the dirt. Following this, dry immediately with a clean cloth. Do not use rough material, thinners, alcohol or other chemical solvents or cloths since these could damage the finish or remove the panel lettering.
5. **Power**
   WARNING
   BEFORE TURNING ON POWER FOR THE FIRST TIME, READ THE FOLLOWING SECTION CAREFULLY.

- Some models are designed for use only with the power supply voltage of the region where they are sold.

European models (except U.K.):	AC220V, 50Hz
Canadian models:	AC120V, 60Hz
U.K. & Australian models:	AC 240V, 50Hz
Worldwide models:	120 and 220V switchable, 50/60Hz

- **Voltage Selector (Rear Panel)**
  Worldwide models are equipped with a voltage selector to conform with local power supplies. Be sure to set this switch to match the voltage of the power supply in your area before turning the power switch on. Voltage is changed by sliding the groove in the switch with a screwdriver to the right or left. Confirm that the switch has been moved all the way to the right or left before turning the power switch on. Models without a voltage selector can only be used in areas where the power supply is the same as that of the unit.



- **Tuning Step Frequency Switch (Bottom)**
  Worldwide models are equipped with a switch that controls the AM (9kHz/10kHz) and FM (50kHz/100kHz) band tuning steps. Be sure to set this switch to match the tuning step frequency in your area.

U.S.A. and Canada	10kHz/100kHz
Other area	9kHz/50kHz

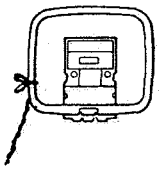
Memory Preservation
This unit does not require memory preservation batteries. A built-in memory power back-up system preserves the contents of the memory during power failures and even when the unit is unplugged. The unit must be plugged in and the power switch turned on and off once in order to charge the back-up system. Note that since this is not a permanent memory, the power switch must be turned on and off a few times each month to keep the back-up system operative.
The memory preservation period after power has been turned off varies depending on climate and placement of the unit. On the average, memory contents are protected over a period of a few weeks after the last time power has been turned off. This period is shorter when the unit is exposed to a highly humid climate.

E

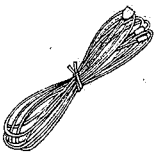
Before using this unit

1. Supplied Accessories

AM loop antenna x 1



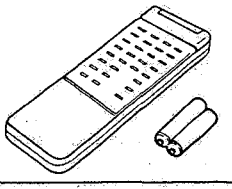
T-shaped FM antenna X 1



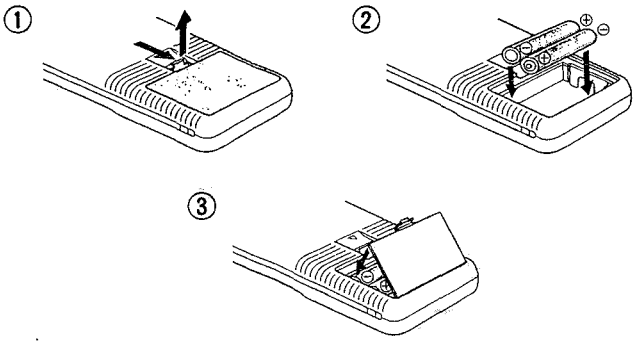
TX-822 only

RI remote control cable x 1

Remote control transmitter x1
Batteries x 2



2. Transmitter Battery Insertion (TX-822 only)



Precautions when using batteries

- The remote control transmitter is powered by two batteries. Before using this unit for the first time, insert the two batteries (included) as shown in the diagram.
- Average battery life is about one year. This period may be shorter depending on the frequency of use and environment (temperature and humidity) in which the remote control transmitter is used.
- If the remote control transmitter does not operate even though front panel controls function normally, the batteries should be replaced. Use only batteries listed in the following chart.

Type	Voltage	Size
Manganese	1.5V	AA R6 UM-3

NOTES:

1. Do not leave an expired battery in the case as it may leak or damage the battery case.
2. When inserting the batteries, be sure the (+) and (−) ends are properly aligned.
3. Do not use nickel-cadmium (rechargeable) batteries.
4. Do not use one specified (manganese) battery and one alkaline Battery at the same time.
5. Replace both batteries at once; do not use one old and one new battery together.

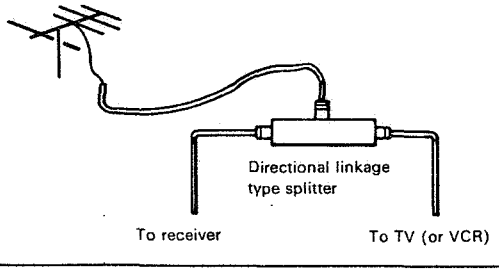
System connections

FM Antenna Connections

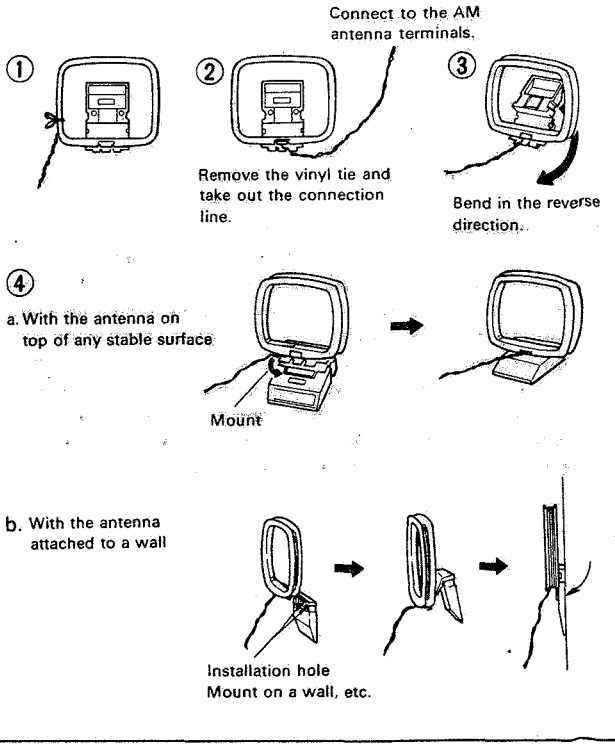
Use the T-shaped antenna if you live in an area where signal strength of FM broadcasts is high. Connect the antenna to the FM 75 ohms terminals and place the antenna on a wall or other surface in the position in which reception is best. If signal strength is low in your area, use a multi-element FM outdoor antenna. Consult your Onkyo authorized service center about the right type of antenna for your area.

NOTES:

1. Do not connect both the indoor T-shaped antenna and an outdoor FM antenna. If you decide to install an outdoor antenna, be sure to disconnect the indoor T-shaped antenna.
2. Do not use the same antenna for both FM and TV reception since the FM and TV signals can interfere with each other. If you must use a common FM/TV antenna, use a directional linkage type splitter.

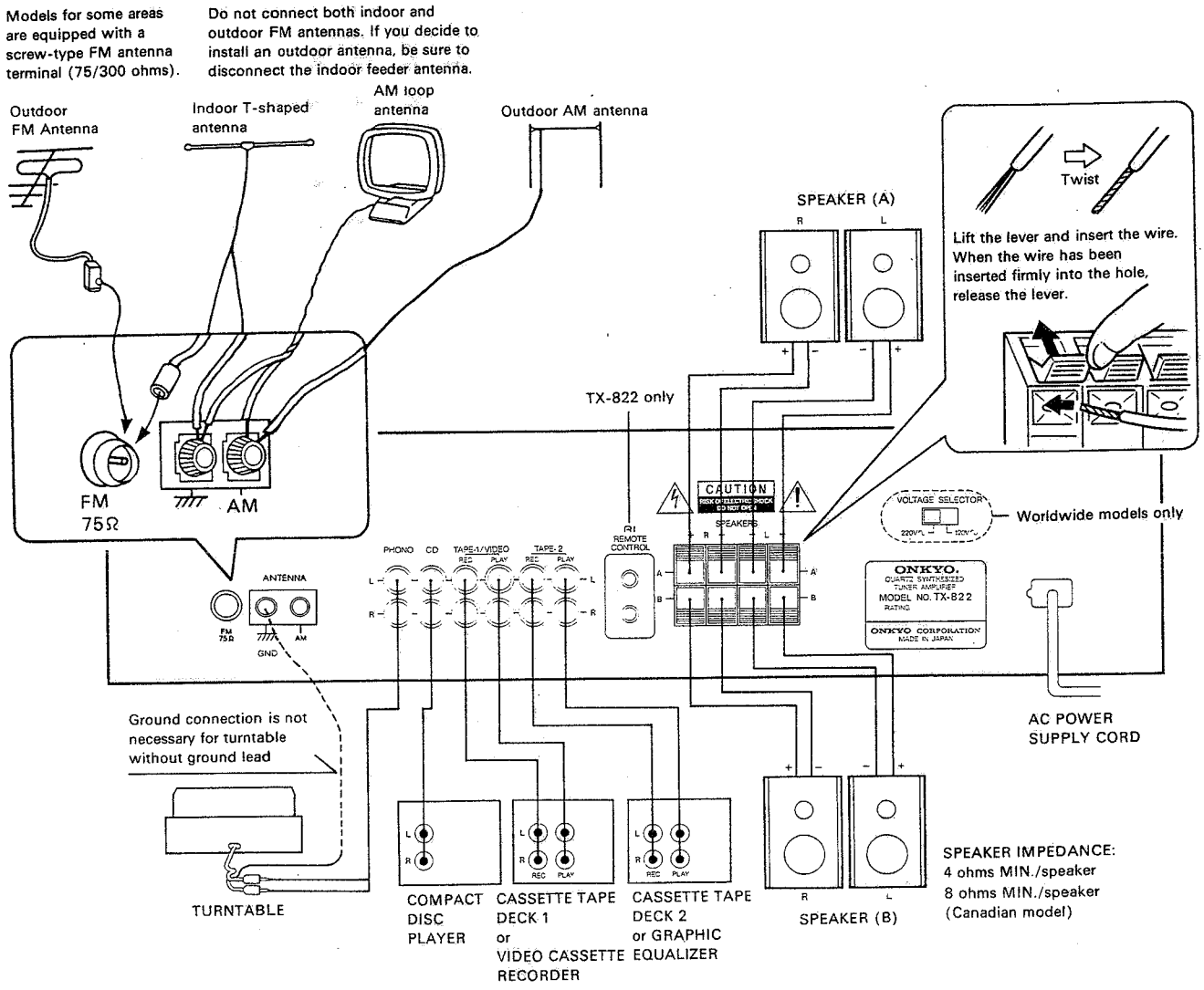


AM loop antenna assembly


Connect to the AM antenna terminals.
①
②
③
Remove the vinyl tie and take out the connection line.
Bend in the reverse direction.
④
a. With the antenna on top of any stable surface
Mount
b. With the antenna attached to a wall
Installation hole
Mount on a wall, etc.

General

Switch the main power switch off before performing connections. Also be sure to perform left and right channel connections properly.


Models for some areas are equipped with a screw-type FM antenna terminal (75/300 ohms).
Do not connect both indoor and outdoor FM antennas. If you decide to install an outdoor antenna, be sure to disconnect the indoor feeder antenna.
Outdoor FM Antenna
Indoor T-shaped antenna
AM loop antenna
Outdoor AM antenna
SPEAKER (A)
Twist
Lift the lever and insert the wire. When the wire has been inserted firmly into the hole, release the lever.
TX-822 only
FM 75Ω
AM
CAUTION
VOLTAGE SELECTOR
Worldwide models only
ANTENNA
PHONO
CD
TAPE-1/VIDEO
TAPE-2
REMOTE CONTROL
SPEAKERS
ONKYO
MODEL NO. TX-822
Ground connection is not necessary for turntable without ground lead
AC POWER SUPPLY CORD
TURNTABLE
COMPACT DISC PLAYER
CASSETTE TAPE DECK 1 or VIDEO CASSETTE RECORDER
CASSETTE TAPE DECK 2 or GRAPHIC EQUALIZER
SPEAKER (B)
SPEAKER IMPEDANCE:
4 ohms MIN./speaker
8 ohms MIN./speaker
(Canadian model)

AM Antenna Connections

An AM loop antenna is included in the installation instructions bag. Take out the connection line and connect it to the AM antenna terminals. This loop antenna can be placed on top of any stable surface or attached to a wall. Try several positions to determine which gives the best reception. Be sure the antenna is not near a speaker, power cord, television set, VCR, or motorized appliances. When using an external AM antenna, do not remove the loop antenna; connect both antennas to the AM antenna terminals.

NOTE:

AM reception is easily affected by television sets and VCRs. Therefore, AM reception may be poor if this unit is placed too close to a TV or a VCR.

Speaker Connections (SPEAKERS)

1. Connect the speakers to A and/or B terminals.
2. When connecting speakers, proper polarity is important. Always connect the (+) terminal (red) on this equipment to the (+) terminal on the speaker and the (−) terminal (black) on this equipment to the (−) terminal on the speaker.
3. Do not connect a single speaker in parallel to the right and left channel outputs.
4. Use speaker cables that have a low impedance and that are as short as possible.

- Attach speaker cables to the rear panel speaker terminals with care, being sure that connections are made firmly and that there is no possibility of a short circuit occurring.

NOTE:

When both the A and B Speaker Selector switches are depressed, the A and B speaker systems operate in a series connection. If only one pair of speakers is connected, no sound at all will be heard.

Compact Disc Player or Other Component Connections (CD)

Connect the output leads of the CD player or an additional audio component to the CD jacks. An Onkyo CD player with remote control that has the RI mark can be operated by the TX-822. (Please refer to "Connections for Remote Control" on page 5.) For more details, refer to your CD player instruction manual.

Turntable Connections (PHONO)

Connect the output leads of the turntable to the PHONO jacks. Be sure to connect the ground (earth) lead wire from the turntable to the ground terminal (GND) (Antenna terminal). Lack of proper ground connection will cause hum. Turntables not provided with GND wires do not need to be connected.

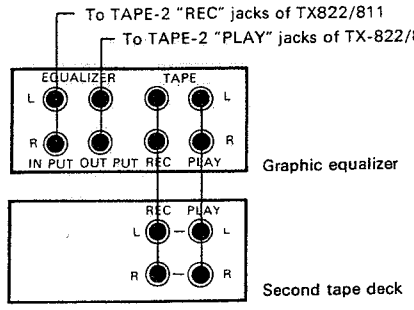
1. Place the turntable on a firm shelf or deck free from vibrations (especially those generated by the speaker system). If the turntable is permitted to pick up such unwanted vibrations, not only with the performance of the unit drop, but distortion in the bass frequencies and howling in the speakers may also occur.
2. Check the turntable instruction manual for any other precautions.
3. The loud noises that occur when connecting and disconnecting the turntable leads, replacing the cartridge or lowering the tonearm could damage the speakers. Always turn the power switch off before making connections.

E

Tape Deck and Graphic Equalizer Connections (TAPE-1, TAPE-2)

1. This unit has facilities for two tape decks. If you are using only one tape deck, connect it to the TAPE-1/VIDEO jacks. If you have two tape decks, connect one to the TAPE-1/VIDEO jacks and the other to the TAPE-2 jacks.
2. Connect the output leads of the tape decks to the TAPE-1/VIDEO and TAPE-2 "PLAY" jacks. Connect the input leads of the tape decks to the TAPE-1/VIDEO and TAPE-2 "REC" jacks of the unit. For more details, refer to your tape deck instruction manual.
3. To connect a graphic equalizer, too, use the TAPE-2 jacks and connect the second tape deck to the tape jacks of the equalizer. (See the figure on the right.)
4. For the audio signal of a VDP, VCR, etc., make the connections to the TAPE-1/VIDEO "PLAY", "REC" jacks. For details, refer to the operating instructions of the video equipment concerned.
5. If you have an Onkyo tape deck with the RI remote control jack, connect it to the TAPE-1/VIDEO jacks. Please refer to the section "Connections for Remote Control" on this page regarding connection of the remote control cable. (TX-822 only)

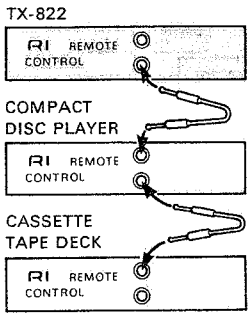
To connect a graphic equalizer and second tape deck to the TAPE-2 jacks.



(TX-822 only)

Connections for Remote Control (REMOTE CONTROL)

A cassette tape deck and compact disc player that have the Onkyo RI mark can be operated, using the accessory remote control transmitter. (RI : Remote Interactive)



An RI remote control cable equipped with a 0.136" (3.5mm) diameter miniature two-conductor phone plug is attached to the TX-822 and to any compact disc player, with the RI mark.

To use an Onkyo compact disc player and cassette tape deck with the RI mark, insert the accessory remote control cable plug into the REMOTE CONTROL jacks. As far as connecting sequence is concerned, it doesn't matter whether the cable is connected from the TX-822 to the cassette tape deck or to the compact disc player. The remote control transmitter is operated by facing it towards the remote control sensor of the TX-822.

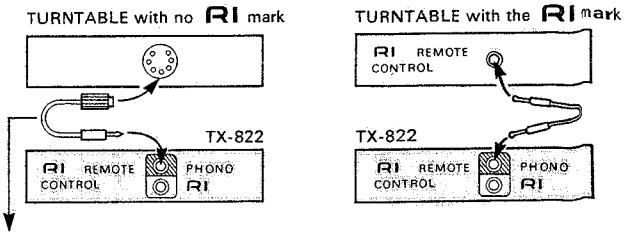
NOTE:

Remote control operation is not possible when only the remote control cable is connected. Remote control cable and pin cord must be connected.

Canadian models only

If you own a Canadian model of the TX-822, the Onkyo turntable can be operated, using the accessory remote control transmitter.

- If your turntable has an RI mark on it, insert the accessory RI remote control cable plug attached to the Onkyo turntable with the RI mark into the PHONO of the TX-822's REMOTE CONTROL.
- Onkyo turntables that can be remote controlled but do not have the RI mark. This equipment has a 7-pin DIN jack on the rear panel. Connect this jack and the jack on the rear of the TX-822 with the special cable for this purpose, which is sold separately.



For this special cable.
Contact an Onkyo Service Center.
For a turntable
(3.5 mm pin to 7-pin plug cable)
part number; 2010140

Direct function feature

NOTE:

This function works when an Onkyo cassette tape deck or CD player with the RI mark is connected to a TX-822 with an RI remote control cable.

Just by directly operating the desired component (compact disc player, or tape deck), the TX-822's input selector automatically switches to that component. The component that was being used stops, and the desired component starts operation. Therefore, it is not necessary to switch the TX-822's input selector when changing listening sources. Another way to switch listening sources is to press the TX-822's input selector of the desired listening source. The current listening source will then stop automatically and the desired listening source will start operation.

Example 1
When the compact disc player's play button is pressed, the TX-822's input selector will switch automatically to "CD." If the current listening source was a tape deck, tape playback will stop and the compact disc player will start playing.

Example 2
With a tape deck as the current listening source, if the TX-822's input selector is switched to "CD," the tape deck will stop playing and the compact disc player will start playing.

NOTE:

- The direct function feature does not apply to turntable.
- In some cases, the direct function may not work the first time the input selector is pressed.
  Pressing the input selector again will enable the direct function. (This is to prevent irregular unit operation.)

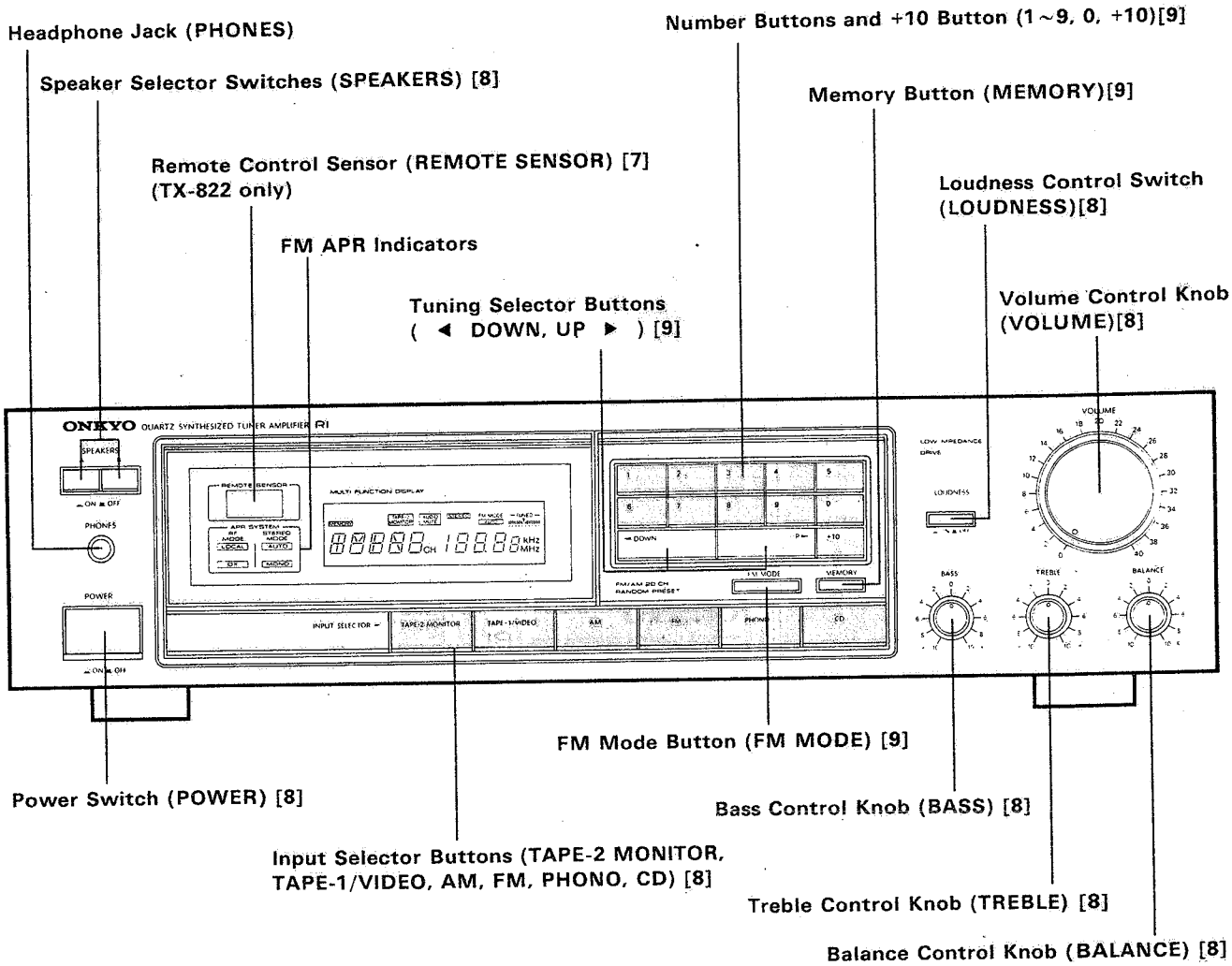
Control positions and names

NOTE:

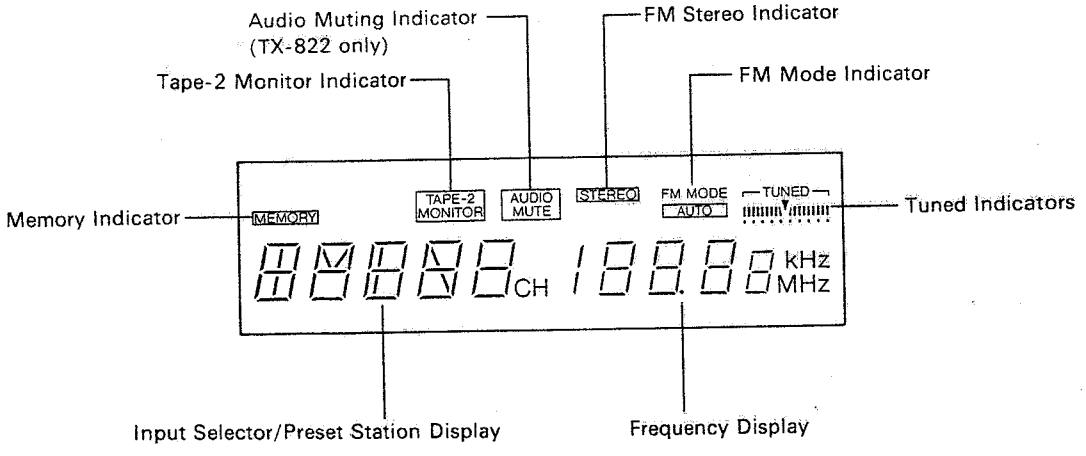
- The features, specifications, and display for the TX-822 and TX-811 are slightly different. Read this manual carefully to operate the model you have purchased correctly.

Front panel

For more information about buttons or controls, turn to the page number listed in the [ ].


Headphone Jack (PHONES)
Speaker Selector Switches (SPEAKERS) [8]
Remote Control Sensor (REMOTE SENSOR) [7] (TX-822 only)
FM APR Indicators
Tuning Selector Buttons (◄ DOWN, UP ►) [9]
Number Buttons and +10 Button (1~9, 0, +10)[9]
Memory Button (MEMORY)[9]
Loudness Control Switch (LOUDNESS)[8]
Volume Control Knob (VOLUME)[8]
Power Switch (POWER) [8]
Input Selector Buttons (TAPE-2 MONITOR, TAPE-1/VIDEO, AM, FM, PHONO, CD) [8]
FM Mode Button (FM MODE) [9]
Bass Control Knob (BASS) [8]
Treble Control Knob (TREBLE) [8]
Balance Control Knob (BALANCE) [8]

Display and indicators



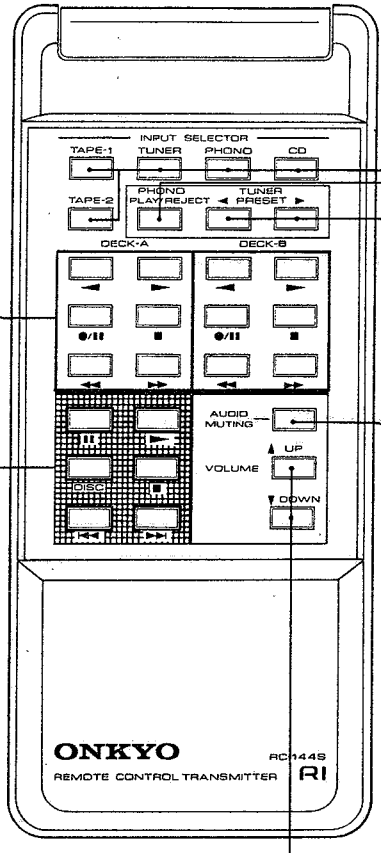
Remote control transmitter (TX-822 only)

Tape Operation Buttons (DECK-A, DECK-B)
These buttons control Onkyo double cassette tape decks that can be remote controlled. Use the DECK-B buttons to control single cassette tape decks with the RI mark.

- ●/❚❚ : When this is pressed, the recording stand-by mode is entered.
- ◀ : The tape plays, moving from right to left, or, in the recording stand-by mode, recording begins.
- ■ : Interrupts all operations.
- ▶ : The tape plays, moving from left to right, or, in the recording stand-by mode, recording begins.
- ◀◀ : Fast forward from right to left.
- ▶▶ : Fast forward from left to right.

CD Operation Buttons (CD)
These buttons are used to operate an ONKYO CD player with the RI mark.

- ▶ : Press this button to play the CD player.
- ❚❚ : Press this button to pause the CD play back. To resume disc play, press the PLAY button.
- DISC: Press to use for sequential selection of discs in the order they were loaded on the CD changer. (RC-144S only)
- ■ : Press this button to stop the CD player.
- ⏮ : Press this button to go back to the beginning of the current track and again to skip back to the previous track.
- ⏭ : Press this button to skip to the next track.



Input Selector Buttons (TAPE-1, TUNER, PHONO, CD, TAPE-2) [8]
* When the TUNER button is pressed, the station which was received previously is recalled. Selection of AM or FM should be done on the main unit.

Phono Operation Button (PLAY/REJECT) (RC-144S only)
This button is used to operate the turntable. The phono operation button can be used only when the PHONO input selector button has been pressed. Each time the phono operation button is pressed, the remote control transmitter alternately emits the play or reject command.

Tuner Operation Buttons (◀ PRESET ▶)
When the UP (▶) or DOWN (◀) remote this button is pressed, the next higher or lower memory channel is recalled. Each time UP or DOWN button is pressed, the following memory channel in the corresponding direction is recalled. If the button is held down the memory channel will increase or decrease continuously until button is released.

Audio Muting Button (AUDIO MUTING) and Indicator
This button temporarily switches off the sound from the speaker or headphone. Pressing this button will operate the TX-822's audio muting circuit. The audio muting indicator [AUDIO MUTE] will light. Pressing the button again will turn off the audio muting.

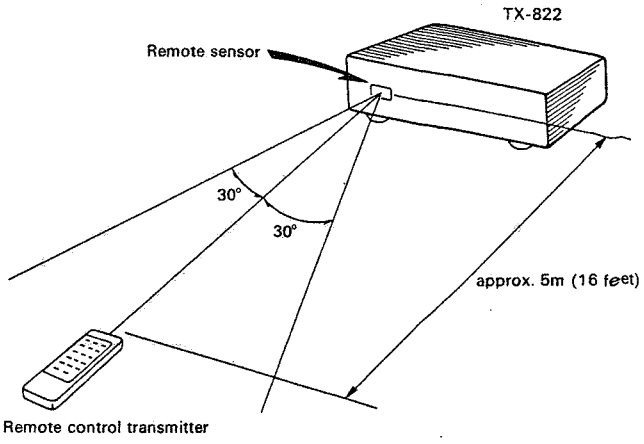
Volume Buttons (▲ UP, ▼ DOWN)
These buttons have the same function as that of the volume control. The volume level can be adjusted by pressing the UP or DOWN button, with the volume control knob rotating simultaneously.

- The tuner amplifiers are provided with the following remote control transmitters:

USA and Canadian models	RC-144S
other area models	RC-148S

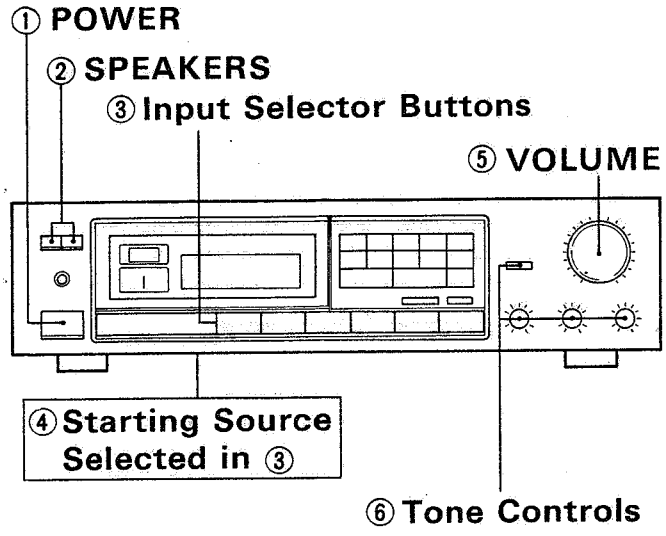
Using the remote control transmitter

1. Remove the batteries if the remote control transmitter is not going to be used for a long time.
2. The batteries of the remote control transmitter must be replaced periodically.
3. This unit uses infrared rays. Therefore, commands may not be received properly if the front panel of this unit is exposed to bright light. To prevent this from occurring, place this unit so that it is not directly exposed to bright light.
4. If this unit is placed inside an audio rack behind a glass door, the door should not have colored glass or have any decorations on it, since this could shorten the range or prevent commands from being received.
5. Use of other infrared remote control devices in the same room may cause interference.
6. The transmitter operates up to a distance of about five meters (16 feet). The transmitting window must always be pointed at the reception window when a command is sent to the TX-822.
7. If this remote control transmitter does not operate properly, confirm that the batteries are not dead. If the problem persists, contact your Onkyo Service Center.



Operations

To listen to your favorite Source



① Press the POWER switch to turn on the power.
- Press once again to turn power off.

② Select the desired pair of speakers by depressing the corresponding speaker selector switch.
- This unit can drive two pairs of speakers in pairs (A or B) or fours (A + B). To listen to both speaker systems at once, depress both speaker selector switches.
- If you are not listening through speakers, connect a pair of headphones to the headphone jack (PHONES). Stereo headphones with a standard binaural plug can be connected here.

③ Press one of the desired Input Selector Button (CD, PHONO, FM, AM, TAPE-1/VIDEO, TAPE-2 MONITOR). Make sure that the connections between the input sources are correct.
- The button pressed is shown in Display. For FM or AM, the band and the frequency are shown in Display.
- Confirm that the TAPE-2 MONITOR indicator is off when a source other than the TAPE-2 MONITOR has been selected. Also check the audio muting (TX-822 only) is off.

④ Start play of the selected input source.
- Follow the operating instructions of that unit.
- If FM or AM is selected, please refer to the section "Tuner Reception".

⑤ Adjust the Volume Control knob to the appropriate level.
- Turn clockwise to increase the volume level. The volume can be adjusted manually and by the remote control transmitter's Volume UP/DOWN button. (TX-822 only)

⑥ Adjust the Tone Controls to obtain the desired tone setting.
- **Bass Control Knob (BASS)**
  Adjust to strengthen or weaken bass response.
- **Treble Control Knob (TREBLE)**
  Adjust to strengthen or weaken treble response.
- **Balance Control Knob (BALANCE)**
  Use this control to adjust the relative volume levels of the left and right speaker systems.
- **Loudness Control Switch (LOUDNESS)**
  When listening at low volume levels, depress this switch to boost the very high and very low frequencies to provide a more natural sound.

NOTE:

If an Onkyo cassette tape deck or CD player is connected to the TX-822 with the RI remote control cable, Operations ③ and ④ above will differ slightly because the direct function feature is used. Please see the section "Direct Function Feature" on page 5.

Tape Recording

① Make all connections between the tape deck and the unit as shown in the System Connections Diagram.

② Radio: Press the FM or AM Input Selector button.
Record: Press the PHONO Input Selector button.
CD: Press the CD Input Selector button.

③ Put the tape deck in the recording mode. The recording can be monitored through the speakers or headphones as desired. For TAPE-2, turn on the corresponding Tape Monitor button to hear the signal that, having been recorded, is returned from the deck to the TX-822/811. (if the deck has three heads).

④ Set the proper recording level using the controls on the tape deck used for recording. Also, during recording and dubbing operations, never change the positions of any controls (bass, treble, etc.) on this unit.

Tape-to-Tape Dubbing

① Connect the two tape decks to this unit as shown in the System Connections diagram.

② Load the original tape in tape deck 1 and the blank tape in tape deck 2.

③ Press the TAPE-1/VIDEO Input Selector button.

④ Put tape deck 1 in the playback mode and tape deck 2 in the recording mode.

⑤ The source signal can be monitored through the speakers or headphones, when the TAPE-2 MONITOR button is in the OFF position. If tape deck 2 has three heads, the just-recorded signal can be monitored (when the TAPE-2 MONITOR button is in the ON position). Refer to the tape deck instruction manuals for more details.

Using the Graphic Equalizer

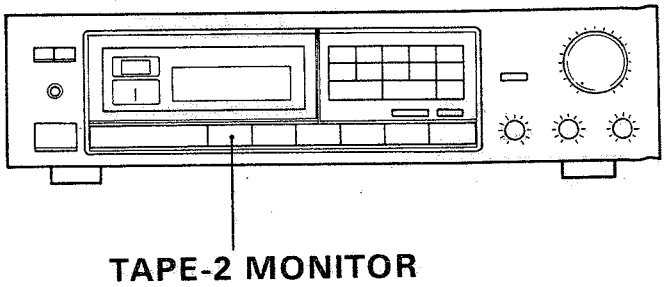
① Connect the graphic equalizer to the TAPE-2 jacks on the rear panel.

② If a second tape deck is used, connect it to the tape jacks on the graphic equalizer.

③ Press the TAPE-2 MONITOR button.

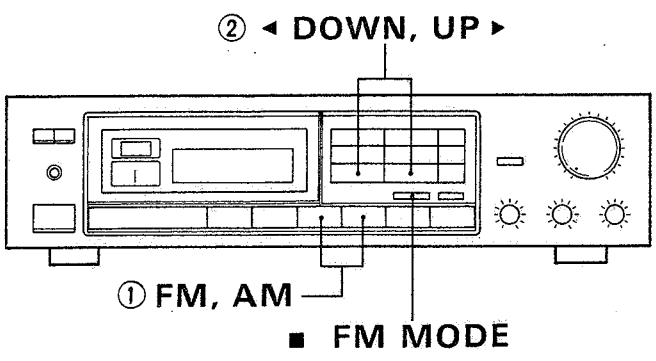
④ Follow the graphic equalizer operating instructions.

⑤ To record an equalized signal, use tape deck 2 (connected to the equalizer) for recording.



E

Tuner Reception



Automatic Precision Reception System (FM Mode)

APR system is Onkyo's unique computer-controlled system. APR system automatically sets the RF stage gain (Distance/Local), stereo/mono reception modes to the proper settings for the qualily of the broadcast currently being received. This indicator changes each time the APR circuit switches between the LOCAL/DX or AUTO/MONO to show the current APR setting. (APR system is effective for only FM reception.)

NOTE:

- When FM MODE button is not AUTO, the APR Mode selection function does not operate, and the STEREO MODE indicator is forced to "MONO".
- The "MONO" indicator lights up for FM monaural reception.
- The RF MODE will indicate LOCAL when sufficient signal is received.

① Press the FM or AM Input Selector button and make sure that the TAPE-2 MONITOR indicator is off and audio muting (TX-822 only) is off.

② To tune in an FM or AM station not stored in the memory, press one of the Tuning selector buttons. If you press UP, the frequency is increased. Pressing DOWN decreases. Note that the frequency is changed in 50 (100)kHz steps in FM and 9(10)kHz steps in AM when the Tuning selector button is pressed in single steps. If this button is pressed continuously for more than 0.5 seconds, the auto tuning mode is entered, and frequencies are scanned automatically. When a broadcast signal is received, scanning stops and that frequency is displayed. If a different frequency is desired, press the button once again.

- The Tuned indicators will light if the broadcast is being properly received. These indicators do not light for weak broadcasts. The red " " indicator blinks during scanning.

■ How to use the FM Mode Button (FM MODE)

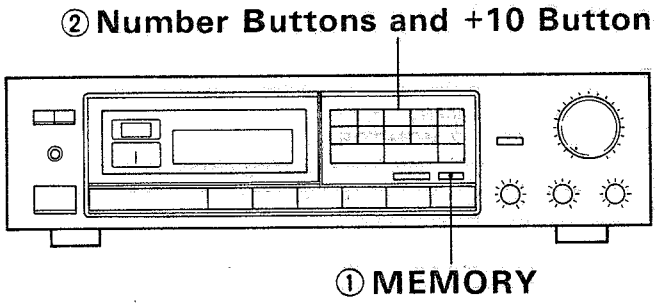
When the FM MODE button is set to AUTO, the AUTO indicator lights and FM stereo reception is possible.

When the FM stereo station reception is weak and noisy, press the FM MODE button and the AUTO indicator goes out, resulting in noise-free monaural reception. At this point, the STEREO indicator goes out. (Mode operation is effective for FM reception only).

- The Stereo indicator will light up if the broadcast is being received in stereo. The Stereo indicator will not light up if the broadcast is monaural or too weak to be received in Stereo.
- Scanning will not stop for weak broadcasts. To receive a weak FM broadcast, select the frequency of the desired broadcast station.

Memory Function

This unit can store a total of 30 FM and AM stations in the memory for instant recall at any time without using the Tuning selector buttons. The 30 stations can be any combination of FM and AM broadcasts. Read the following directions carefully to avoid mistaken operations.



- Tune in the broadcast following the instructions in the section "Tuner Reception".

① Press the MEMORY button.

- The MEMORY indicator will light for 8 seconds.

② Select the preset station using the Number Buttons and +10 Button.

- The +10 Button is used when inputting preset station numbers from 10 to 30. The display changes from 1"-", 2"-", 3"-" to "-", then 1"-" again and so on each time the +10 Button is pressed. If you want to input preset station number 25, press the +10 Button twice, then press the Number Button 5. If you want to input preset station number 30, press the +10 Button three times, then press the Number Button 0.

- When the Preset station number is input, the Memory indicator will go out and the input preset number will come on. The frequency currently shown in the frequency display is now stored in the memory.
- If the Memory indicator goes out before you have input the Preset station, simply press the MEMORY button again to give yourself another 8 seconds.
- Placing another broadcast in the same memory channel automatically cancels the station previously stored in that channel.

NOTES:

Preset frequencies can be transferred to other channels. For example, the FM station stored on Preset station number 6 can be transferred to Preset station number 1 in the following manner:

1) Input Preset station number 6.
2) Press the MEMORY button (Memory indicator lights).
3) Input Preset station number 1.
4) The same station is now stored on both Preset station 1 and 6.

To recall a station stored in the memory

Simply input the desired Preset Station Number. Since this is a random FM/AM memory, an AM station will be tuned in if you use a memory channel in which an AM station is stored.

Trouble shooting guide

NOTE (TX-822 only):

If a problem occurs, first operate the unit using the front panel controls to confirm that it is not due to a malfunction (or worn out batteries) of the remote control transmitter.

Trouble	Cause	Remedy
No power.	● Power cord is disconnected. ● AC fuse blown.	● Connect power cord. ● Contact Onkyo Service Center.
Power but no sound.	● Tape monitor switch on. ● Audio muting switch on.(TX-822 only) ● Bad connections. ● Amplifier protection circuitry has been activated.	● Switch to off. ● Switch to off by remote control transmitter. ● Check input leads, speaker leads, pin plugs, etc. ● Contact Onkyo Service Center.
Hum, low frequency noise.	● Poor or no input ground. ● Poor or no phono motor ground.	● Check outer conductor of input plugs. ● Check for proper ground connection.
Howling when the volume is turned up.	● Turntable and speakers are too close together.	● Move them farther apart.
Rough or scratchy sound. High range is not clear.	● Stylus of pick-up is worn. ● Stylus tip is dirty. ● Treble control too high.	● Replace. ● Clean. ● Turn treble control down.
AM stations cannot be received.	● AM loop antenna is not attached.	● Connect the included AM loop antenna to the AM antenna terminals.
Buzzing noise on AM (particularly conspicuous at night or with weak stations).	● Noise from electrical apparatus such as fluorescent lamp.	● Move AM loop antenna to different position. ● Set up outdoor AM antenna.
High pitched noise or buzzing noise on AM.	● Noise from TV.	● Place the AM loop antenna as far as possible from the TV. ● Move unit away from TV set.
Crackling noise on AM and FM.	● Noise caused by turning fluorescent lamp on and off. ● Noise from automobile ignition.	● Move antenna as far as possible from the fluorescent lamp. ● Install and FM outdoor antenna as far as possible from the road. ● Change the position or direction of the outdoor antenna.
FM tuned and stereo indicators light but sound is distorted and stereo separation is bad.	● Station is too strong. ● Multiple reflection of the radio waves because of tall buildings or mountains.	● Change to T-shaped antenna. ● Use antenna which has better directivity and select a point where the distortion is least.
FM tuned and stereo indicators flicker on and off and hiss is heard on FM.	● Station is too weak. ● Stereophonic FM broadcasts cover only about half the distance of an ordinary broadcasts.	● Install an outdoor FM antenna. ● Change the position or direction of the outdoor antenna.
No station is recalled when a preset station number is input.	● The power switch has not been turned on for a long time or the power cord has been unplugged for a long time.	● The memory contents are lost if the power switch is not turned on a few times each month. Store all stations again and remember to turn the power on a few times each month.
Front panel controls function but remote control transmitter does not. (TX-822 only)	● No batteries in remote control transmitter. ● Batteries have worn out.	● Insert batteries. ● Replace batteries.

The tuning steps by which the tuned frequency changes on each band have been set at the factory to the proper value for the country where each unit is to be sold. If you use the unit in a country where a different tuning step is required or if the broadcast frequencies in your country change so that you can not tune in radio stations precisely, contact your authorized Onkyo Service Center.

E

Specification

AMPLIFIER SECTION	TX-822	TX-811
Power Output:	40 watts per channel, min. RMS, at 8 ohms, both channels driven, from 40Hz to 20kHz, with no more than 0.3% THD. (Canadian models: 50 watts per channel, min. RMS, at 8 ohms, both channels driven, from 40Hz to 20kHz, with no more than 0.3% THD.)	40 watts per channel, min. RMS, at 8 ohms, both channels driven, from 40Hz to 20kHz, with no more than 0.3% THD.
Musical Power Output:	2 x 95 watts at 4 ohms, 1kHz (DIN) 2 x 68 watts at 8 ohms, 1kHz (DIN)	2 x 95 watts at 4 ohms, 1kHz (DIN) 2 x 68 watts at 8 ohms, 1kHz (DIN)
Continuous Power Output:	2 x 50 watts at 4 ohms, 1kHz (DIN) 2 x 45 watts at 8 ohms, 1kHz (DIN)	2 x 50 watts at 4 ohms, 1kHz (DIN) 2 x 45 watts at 8 ohms, 1kHz (DIN)
Total Harmonic Distortion:	0.3% at rated power 0.1% at 30 watt output	0.3% at rated power 0.1% at 30 watt output
IM Distortion:	0.3% at rated power 0.1% at 30 watt output	0.3% at rated power 0.1% at 30 watt ouput
Damping Factor:	35 at 8 ohms	35 at 8 ohms
Frequency Response:	20 – 30,000 Hz ± 1dB	20 – 30,000 Hz ± 1dB
RIAA Deviation:	20 – 20,000 Hz ± 0.8dB	20 – 20,000 Hz ± 0.8dB
Sensitivity and Impedance:	Phono: 2.5mV/50 kohms CD/Tape Play: 150mV/50 kohms Tape Rec: 150mV/3.5 kohms	Phono: 2.5mV/50 kohms CD/Tape Play: 150mV/50 kohms Tape Rec: 150mV/3.5 kohms
Phono Overload:	120mV RMS at 1kHz, 0.3% THD	120mV RMS at 1kHz, 0.3% THD
Signal-to-Noise Ratio:	Phono: 80dB (at 5mV input, IHF-A) CD/Tape: 100dB (IHF-A)	Phono: 80dB (at 5mV input, IHF-A) CD/Tape: 100dB (IHF-A)
Tone Controls:	Bass: ± 10dB at 100Hz Treble: ± 10dB at 10kHz	Bass: ± 10dB at 100Hz Treble: ± 10dB at 10kHz
Muting:	– ∞	–

TUNER SECTION		
FM:		
Tuning Range:	European models: 87.5 — 108.0MHz (50kHz steps) Canadian models: 87.5 — 108.0MHz (100kHz steps)	European models: 87.5 — 108.0MHz (50kHz steps) Canadian models: 87.5 — 108.0MHz (100kHz steps)
Usable Sensitivity:	Mono: 12.4dBf, 1.2μV, 75 ohms 1.2μV (S/N 26dB, 40kHz Devi.) 75 ohms DIN Stereo: 19.2dBf, 2.5μV, 75 ohms 25μV (S/N 46dB, 40kHz Devi.) 75 ohms DIN	Mono: 12.4dBf, 1.2μV, 75 ohms 1.2μV (S/N 26dB, 40kHz Devi.) 75 ohms DIN Stereo: 19.2dBf, 2.5μV, 75 ohms 25μV(S/N 46dB, 40kHz Devi.) 75 ohms DIN
50dB Quieting Sensitivity:	Mono: 18.2dBf, 2.2μV, 75 ohms Stereo: 38.2dBf, 22μV, 75 ohms	Mono: 18.2dBf, 2.2μV, 75 ohms Stereo: 38.2dBf, 22μV, 75 ohms
Capture Ratio:	1.5dB	1.5dB
Image Rejection Ratio:	85dB	85dB
IF Rejection Ratio:	90dB	90dB
Signal-to-Noise Ratio:	Mono: 70dB Stereo: 65dB	Mono: 70dB Stereo: 65dB
Selectivity	50dB DIN (±300kHz, 40kHz dev.)	50dB DIN (±300kHz, 40kHz dev.)
AM Suppression Ratio:	50dB	50dB
Harmonic Distortion:	Mono: 0.15% Stereo: 0.30%	Mono: 0.15% Stereo: 0.30%
Frequency Response:	30 – 15,000Hz ± 1.5dB	30 – 15,000Hz ± 1.5dB
Stereo Separation:	40dB at 1kHz 30dB at 100 – 10,000Hz	40dB at 1kHz 30dB at 100 – 10,000Hz
AM:		
Tuning Range:	European models: 522 — 1611kHz (9kHz steps) Canadian models: 530 — 1710kHz (10kHz steps) Saudi Arabia & Worldwide models: 531 — 1602kHz (9kHz steps)	European models: 522 — 1611kHz (9kHz steps) Canadian models: 530 — 1710kHz (10kHz steps) Saudi Arabia & Worldwide models: 531 — 1602kHz (9kHz steps)
Usable Sensitivity:	30μV	30μV
Image Rejection Ratio:	40dB	40dB
IF Rejection Ratio:	40dB	40dB
Signal-to-Noise Ratio:	40dB	40dB
Harmonic Distortion:	0.8%	0.8%

GENERAL		
Power Supply:	European models: AC220V, 50Hz Canadian models: AC120V, 60Hz U.K& Australian models: AC 240V, 50Hz Worldwide models: 120 and 220V switchable, 50/60Hz	European models: AC220V, 50Hz Canadian models: AC120V, 60Hz U.K& Australian models: AC 240V, 50Hz Worldwide models: 120 and 220V switchable, 50/60Hz
Dimensions (W x H x D):	435 x 115 x 320 mm 17-1/8" x 4-1/2" x 12-9/16"	435 x 115 x 320 mm 17-1/8" x 4-1/2" x 12-9/16"
Weight:	6.7 kg., 14.8 lbs.	6.7 kg., 14.8 lbs.

Remote control transmitter RC-148S/RC-144S (TX-822 only)

Transmitter:	Infrared
Signal range:	Approx. 5 meters (16ft. 4")
Power supply:	Two "AA" batteries (1.5V x 2)

Specifications and features are subject to change without notice.